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| 10/743,263 | 12/22/2003 | Ulrich Sieben | Micronas.7865 | 4471 |

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RAMILLANO, LORE JANET

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| ART UNIT | PAPER NUMBER |
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1743

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/743,263

Applicant(s)

SIEBEN, ULRICH

Examiner

Lore Ramillano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-46 is/are pending in the application.
- 4a) Of the above claim(s) 12-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,45 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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DETAILED ACTION

1. In applicant's reply filed on 9/11/06, applicant amended claims 1, 6, 10-11, and 45-46; and cancelled claim 3.

Election/Restrictions

2. Claims 12-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely affirmed the restriction (election) requirement in the reply filed on 9/11/06.

Response to Amendment

Claim Rejections - 35 USC § 112

3. The objection to the drawing is withdrawn.
4. The rejection of claims 6, 45, and 46, under 35 U.S.C. 112, second paragraph, is withdrawn. However, in light of applicant's amendments, a new rejection follows.
5. The rejection over Zeleny et al. is withdrawn and the rejection over Woods is maintained.
6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 1-2, 4-11, and 45-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 and 45 are indefinite because applicant's amended claim language is confusing with regard to "where the at least one substance is disposed differently in the

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defined regions.” Based on the amended claim language, it appears that the code indicates where the at least one substance is disposed differently in the defined regions.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-2, 4-11, 45, and 46** are rejected under 35 U.S.C. 102(e) as being anticipated by Woods (US 2003/0177380).

Woods discloses a device comprising an array holder (2, Fig. 1A), which includes one or more measuring sensors, such as a temperature sensor (4, Fig. 1A), and a data storage element (“code,” 8, Fig. 1A). The array holder communicates with an array assay device, such as a biopolymeric array (“carrier medium,” 110, Figs. 3-5), via a communication element (10, Fig. 1A).

The carrier medium is composed of a film strip, glass carrier, or paper (paragraphs [0071]-[0072]) and comprises of more than one array (“at least two defined regions, 112, Figs. 3-4), which are disposed differently because each one has distinguishable features (i.e. distinct polymeric sequences, distinct sizes, and distinct configurations) (paragraphs [0067] and [0074]). Moreover, each defined region of a carrier medium will be disposed differently on another carrier medium because each

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carrier medium comprises distinguishable substances, which include biological and chemical substances (i.e. DNA, paragraph [0068]). (paragraphs [0074] and [0075]).

Woods further discloses a code, which provide scanning procedures, information about the expiration date of the carrier medium, information relating to the storage of the carrier information, reagent data, temperature data, and other useful information about the carrier medium (paragraphs [0022]-[0025], and [0080]).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. **Claims 1, 2, 4-11, 45, and 46** rejected under 35 U.S.C. 103(a) as being unpatentable over Zeleny et al. (US 6215894) in view of Woods.

Zeleny et al. disclose a microarray biochip ("glass carrier medium," 10, Fig. 1), which comprise two array regions ("at least two defined regions," 12 and 14, Fig. 1). Each of the defined regions performs different experiments because each defined

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region comprises a different combination of reagents ("at least one substance which may be disposed differently in the defined regions," column 3, line 2-7; column 4, lines 19-22), which include biological samples (i.e. DNA, column 1, lines 49-52).

Zeleny et al. further disclose identifiers ("codes," 16 and 18, Fig. 1), which comprise a numeral (16a, 18a, Fig. 1) and a corresponding bar code (16b, 17b, Fig. 1). These codes provide information about the experimental parameters of each defined region, the source of each defined region, the scanning and analysis protocols, the operating parameters for the analysis protocols, and the identification of each defined region (column 3, lines 8-18).

Zeleny et al. does not specifically disclose a temperature sensor.

As disclose above, Woods discloses a device comprising an array holder (2, Fig. 1A), which includes one or more measuring sensors, such as a temperature sensor (4, Fig. 1A). It would be desirable to know the temperature of a single or multiple arrays to optimize the reaction conditions.

It would have been obvious to a person of ordinary skill in the art to modify Zeleny et al. by incorporating the temperature sensor of Woods because knowing the temperature of a single or multiple arrays would optimize the reaction conditions and ensure that the reaction conditions occurring on Woods array is occurring within an acceptable temperature range.

Response to Arguments

13. Applicant's arguments filed on 9/11/06 have been fully considered but they are not persuasive with regard to Woods.

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In response to applicant's argument that Woods fails to disclose the feature of the amended claim 1 of "a code that indicates which of the at least one substance is located at which of the at least two defined regions," examiner disagrees. Because the "data storage element" of Woods refers to any suitable device which is capable of receiving and storing large amounts of data, such as conditions or parameters relating to the array, the "data storage element" of Woods has the ability to indicate which of the at least one substance is located at which of the at least two defined regions. Applicant should further note that the following, "a code that indicates . . ." is a recitation of functional language, which means that as long as the device of Woods is capable of performing the claimed function, then Woods meets this limitation.

14. Applicant's arguments, with respect to the rejection of claim(s) 1, 2, 6-11, 45, and 46 under Zeleny et al. have been fully considered and are moot in view of the new ground of rejection in view of Zeleny et al. in view of Woods.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lore Ramillano whose telephone number is (571) 272-7420. The examiner can normally be reached on Mon. to Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lore Ramillano
Examiner
Art Unit 1743

11/20/06



LYLE A. ALEXANDER
PRIMARY EXAMINER